

# SLOVENIA

## PA7. Improving energy management in a public school of Velenje

### Introduction

The **BOOSTEE-CE** (*Boosting Energy Efficiency in Central European Cities through Smart Energy Management*) project will develop and implement technical solutions, strategies, management approaches & financing schemes to achieve higher Energy Efficiency (EE) in public buildings. This will be achieved through a transnational cooperation and using geospatial data, smart energy management tools and energy audit to facilitate the implementation of EE buildings. The final aim is to improve the governance of EE in existing public buildings (within Pilot Actions) and ultimately reduce energy consumption.



Source: Municipality of Velenje

### Aim

The pilot action to improve energy efficiency is implemented in 1 public building. The activities are implemented in the **Music school Fran KorunKoželjski Velenje** built in 1987 (newer part of building built in 1998). Municipality of Velenje is the owner of the building and responsible for implementation. The school has 47 classrooms and five halls on 6360 m<sup>2</sup>. Due to its large spatial dimensions, it is extremely suitable for conducting major concerts, competitions, magazines and summer schools. The building is supplied with heat from the municipal heating network. The energy consumption of the building has been identified at 758 970 kWh/year for heating, while the electricity consumption is 201 629.10 kWh/year.

The following objectives have been agreed as part of the pilot:

- improvement of the energy performance, saving and efficiency of the building
- monitoring buildings data
- increasing the comfort of the building use
- easier operation of the building
- promoting and disseminating knowledge about energy efficiency measures in building



Source: Municipality of Velenje

### Solutions

The pilot action includes an investment in an innovative **smart metering for heating, electricity and water consumption**. The central monitoring system is also installed for demonstrating energy management, consumption control and educational purposes. The **“3D Energy Management System (EMS)”** with detailed load curves as a part of OnePlace platform and staff training about energy efficient use are implemented. The replacement of the light bulbs for energy-saving light bulbs is also subject to investment.



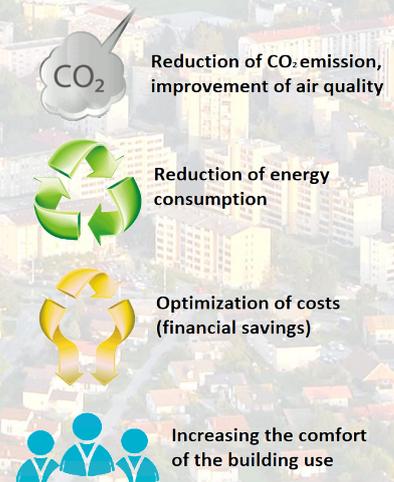
## PA idea (MONITOR -> CONTROL -> MANAGE -> SAVE)

The implementation of the energy consumption **monitoring and management** system contributes to a significant reduction in the value of energy bills. The data collected by the system, which constantly **controls** the level of energy consumption, allow to optimize the level of contracted capacity, which in turn generates **annual savings**. The system constantly monitors the level of energy consumption, provides information about where it is distributed, where it is lost. The tools provided by the system allow to easily analyze this data and draw conclusions about ways to reduce the costs associated with the use of energy. Energy **management** allows to optimize the contracted capacity, selection of a cost-effective tariff, energy monitoring and provides knowledge about energy flows in the building.



## PA indicators & results

- 04.2018-04.2020 investment period
- 19 900 € investment cost
- 5-12 people involved in PA implementation
- 2 tools / instruments used
- \_ trainings, meetings, seminars etc.
- \_ reduction of energy consumption
- \_ annual cost savings
- \_ reduction of CO<sub>2</sub> emission
- change in people's behavior



## Added values for replication and dissemination

The activities can be transferable and replicated in other cases and regions. Information about the pilot action is promoted and disseminated in the region and beyond. The conducted analysis shows that the pilot action in Velenje can be repeated in the **Savinjsko-Šaleška region** (SAŠA region).

### Contact

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